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Harald Ligtenberg

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THE NATH LAW GROUP

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Alexandria, VA 22314

EXAMINER

YAGER, JAMES C

ART UNIT

PAPER NUMBER

1794

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,188	Applicant(s) LIGTENBERG ET AL.	
	Examiner JAMES YAGER	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-8, 10, 13, 15-17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10, 13, 15-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed 30 June 2009 has been entered. Claims 1-3, 5-8, 10, 13, 15-17, 19 and 20 are currently pending in the application. The rejections of record from the office action dated 30 March 2009 not repeated herein have been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3, 5-8, 10, 15-17, 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There does not appear to be support for the recitation of "continuous" given that this term is not mentioned or defined in the specification. There is support for the inner reinforcing layer being supplied as set forth on page 12 lines 15-20 of the instant specification. However, it is not clear if there is a difference

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between the language as set forth in the specification and “feeding at least one reinforcing layer into the winder before the nonwoven web runs into the winder”.

Clarification is requested.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 5-8, 10, 15-17, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 13, the phrase “trailing end” renders the claims indefinite because it is unclear what portion of the nonwoven web is considered to be the “trailing end” - the last 1/4 of the layer, the last 1/10 of the layer?

Regarding claims 1 and 13, the term “continuous” renders the claims indefinite because it is unclear what is meant by this term.

Regarding claim 13, it is not clear how a pipe sleeve can comprise a continuous nonwoven web, i.e. while the pipe sleeve can be made from a continuous web, it is not clear how the pipe sleeve itself has a continuous web.

Regarding claim 1, the phrase “feeding at least one reinforcing layer into the winder before the nonwoven web runs into the winder” renders the claim indefinite because it is unclear how “feeding” differs from “runs into”.

Claim 1 recites the limitation “the coil” in line 20. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 1, 2, 6-8, 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin-Ehret-Hill Inc. (GB 1214330), in view of Seitz (GB 2032845).

Regarding claims 1, 2, 6, 7, 10 and 19, Baldwin-Ehret-Hill Inc. discloses a process for producing pipe sleeves (P1/L10-15, laminated pipe covering) made of mineral wool (P3/L35-40) for insulating pipelines or for reducing the sound level in pipeline systems, comprising the following steps: a) providing a nonwoven web made of mineral wool which is provided with an uncured binder (P3/L80-85), b) winding up the nonwoven web on a winding mandrel of a winder (P3/L30-35), c) curing the binder (P4/L15-20), feeding at least one reinforcing layer into the winder before the nonwoven web runs into the winder, in such a way that during the winding the said reinforcing layer becomes a constituent part of the pipe sleeve produced as a result (P3/L35-40, P3/L55-60), characterized in that the at least one reinforcing layer is applied to the nonwoven web in such a way that it is wound up with it and, following winding, is present within the pipe sleeve (P3/L30-40), characterized in that the reinforcing layer is a glass nonwoven, a woven glass fiber fabric (P3/L35-40, nonwoven glass fiber), characterized in that the reinforcing layer is wetted with additional binder before being provided for the winding operation (P3/L79-85).

Since no binder is recited as being present in the reinforcing layer other than the "additional binder" recited in claim 7, and the only other recitation of binder in the claims preceding claim 7 is the binder in the nonwoven web, it is the examiner's position that the binder recited in claim 7 is "additional" to the binder

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present in the nonwoven web. Given that both the reinforcing layer and nonwoven layer of BEH have binder in them, it is clear that the binder present in the reinforcing layer of BEH is "additional" to the binder present in the nonwoven layer and therefore meets the limitation of "additional binder".

Given the broad recitation of feeding the at least one reinforcing layer before the nonwoven web runs into the winder, thereby providing said at least one reinforcing layer before inclusion of the nonwoven web in the pipe sleeve, and given that all layers must be fed into the winder before any layer (i.e. reinforcing layer or the nonwoven web) run into the winder, it is the examiner's position that the BEH reference clearly meets the limitation that the process comprises feeding the at least one reinforcing layer before the nonwoven web runs into the winder, thereby providing said at least one reinforcing layer before inclusion of the nonwoven web in the pipe sleeve.

Baldwin-Ehret-Hill Inc. does not disclose providing an outer sheath reinforcing layer added to the trailing end section of the nonwoven web such that a leading end of the outer sheath reinforcing layer overlaps the trailing end section of the nonwoven web, after providing the reinforcing layer in such a way that said outer sheath reinforcing layer comes to lie on the outside of the pipe sleeve with the effect of a lamination, as an outer layer, the outer sheath reinforcing layer arranged around the full circumference, completely circumferentially around the coil.

Seitz discloses a process for making an insulating shell for thermal insulation of pipelines (i.e. a pipe sleeve) (P2/L1-5), comprising rock wool (i.e.

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mineral wool) having an outer layer of glass wool (i.e. an outer sheath reinforcing layer) (P2/L10-16). Seitz discloses that the outer layer of glass wool layer is produced by coiling the outer layer of glass wool layer on a mandrel after coiling on the inner rock wool layer (i.e. added after providing the inner layer in such a way that said outer sheath reinforcing layer comes to lie on the outside of the pipe sleeve with the effect of lamination, as an outer layer; added to a trailing end section) (P1/L117-125). It is clear from Figure 1 that the outer layer is arranged around the full circumference, completely circumferentially around the coil. Seitz discloses that the outer layer of glass wool improves the rigidity and substantially facilitates handling (P2/L13-15). It is clear that since the outer layer is made of the same material and has the same structure as the instantly claimed trickle guard, it is inherently a trickle guard.

Baldwin-Ehret-Hill Inc. and Seitz are analogous art because they both teach about making pipe sleeves. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the step of adding the outer layer of Seitz after coiling the inner layers as disclosed by Seitz into the process of making the pipe sleeve of Baldwin-Ehret-Hill Inc. to provide a pipe sleeve that has improved rigidity and is easier to handle.

Given the broad recitation in claim 1 that the outer sheath reinforcing layer is added to the trailing end of the nonwoven web, and given that the outer layer of the pipe sleeve produced by the process of modified BEH will be wrapped around the nonwoven web, it is the examiner's position that the outer sheath reinforcing layer of modified BEH is added to a trailing end section of the non

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woven web such that a leading end of the outer sheath reinforcing layer overlaps the trailing end section of the nonwoven web.

Regarding claim 8, modified Baldwin-Ehret-Hill Inc. discloses all of the claim limitations as set forth above. Modified Baldwin-Ehret-Hill Inc. further discloses a pipe sleeve (P3/L35-45) made of mineral wool for insulating pipelines or for reducing the sound level in pipeline systems, the pipe sleeve being formed of a wound nonwoven web with cured binder produced by means of a process according to claim 1 (P3/L30-40, P3/L80-85).

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin-Ehret-Hill Inc. (GB 1214330) in view of Seitz (GB 2032845), as applied to claim 1 above, in view of Hofmann (US 3,824,140).

Regarding claim 5, modified Baldwin-Ehret-Hill Inc. discloses all of the claim limitations as set forth above. Baldwin-Ehret-Hill Inc. does not disclose that the reinforcing layer is applied to the mandrel before the winding of the nonwoven web in such a way that it provides the inner surface of the pipe sleeve determining the clear internal diameter of the pipe sleeve.

Hofmann discloses a process for producing pipe sleeves for insulating pipelines comprising a) providing a nonwoven web (C2/L40-45) b) winding up the nonwoven web on a winding mandrel of a winder (C3/L40-50), characterized in that at least one reinforcing layer is provided (C1/L45-50, metal foil layer) before the nonwoven web runs into the winder, in such a way that during the winding the said reinforcing layer becomes a constituent part of the pipe sleeve produced as a result (Fig. 3). Hofmann further discloses that the reinforcing layer is applied to

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the mandrel before the winding of the nonwoven web in such a way that it provides the inner surface of the pipe sleeve determining the clear internal diameter of the pipe sleeve (Fig. 3).

Baldwin-Ehret-Hill Inc., Seitz and Hofmann are analogous art because they all teach about processes of producing pipe sleeves comprising winding up nonwoven webs and reinforcing layers on a winding mandrel of a winder. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the reinforcing layer to the mandrel before the winding of the nonwoven web in such a way that it provides the inner surface of the pipe sleeve determining the clear internal diameter of the pipe sleeve as described by Hofmann in the process of modified Baldwin-Ehret-Hill Inc. to provide a pipe sleeve that is reinforced on the innermost surface to maintain the structural integrity of the innermost surface. Doing so would amount to nothing more than a use of a known method step for its intended use in a known environment to accomplish entirely expected result.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin-Ehret-Hill Inc. (GB 1214330) in view of Seitz (GB 2032845), as applied to claim 2 above, in view of Roth (US 5,056,564).

Regarding claim 3, modified Baldwin-Ehret-Hill Inc. discloses all of the claim limitations as set forth above. Baldwin-Ehret-Hill Inc. discloses that the reinforcing layer is placed on the nonwoven web and is then wound up together with the latter (P3/L35-40, P3/L55-60). Baldwin-Ehret-Hill Inc. does not disclose that the reinforcing layer comprises a plurality of separate strips.

Roth discloses a process for producing pipe sleeves (C1/L10-15) comprising a) providing a nonwoven web made of mineral wool (C1/L15-16) b) winding up the nonwoven web on a winding mandrel of a winder, characterized in that at least one reinforcing layer is provided before the nonwoven web runs into the winder, in such a way that during the winding the said reinforcing layer becomes a constituent part of the pipe sleeve produced as a result (C1/L15-20). Roth discloses that the reinforcing layer comprises a plurality of separate strips (C2/L40-52, bracing strips). Roth further discloses that providing the reinforcing layer in strips provides helps the sleeve to conform to the surface of the pipe (C2/L40-60).

Baldwin-Ehret-Hill Inc., Seitz, and Roth are analogous art because they both teach about processes of producing pipe sleeves comprising winding up nonwoven webs and reinforcing layers on a winding mandrel of a winder. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the reinforcing layer in the form of strips as taught by Roth in the process of modified Baldwin-Ehret-Hill Inc. to provide a process of making a pipe sleeve wherein the sleeve more easily conforms to the shape of the pipe.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lauren (US 4,576,206) in view of Seitz (GB 2032845).

Regarding claim 13, Lauren discloses a pipe sleeve made of mineral wool (C1/L10-16), characterized in that it has at least one reinforcing layer (C2/L33-36) which provides the inner surface of the pipe sleeve that determines the clear

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internal diameter of the pipe sleeve (Fig. 1) and a main layer of mineral wool (i.e. a roll of continuous nonwoven web made of mineral wool) (C2/L1-10). Lauren does not disclose a reinforcing layer in the form of a trickle guard would circumferentially around it.

Seitz discloses an insulating shell for thermal insulation of pipelines (i.e. a pipe sleeve) (P2/L1-5), comprising rock wool (i.e. mineral wool) having an outer layer of glass wool (i.e. an outer sheath reinforcing layer reinforcing layer in the form of a trickle guard wound circumferentially around the continuous nonwoven web with a leading end of the outer sheath reinforcing layer overlapping the trailing end of the roll of continuous nonwoven web; the outer sheath provided as a glass nonwoven fabric) (P2/L10-16). Seitz discloses that the outer layer of glass wool improves the rigidity and substantially facilitates handling (P2/L13-15). It is clear that since the outer layer is made of the same material and has the same structure as the instantly claimed trickle guard, it is inherently a trickle guard.

Lauren and Seitz are analogous art because they both teach about pipe sleeves. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the outer layer of Seitz into the pipe sleeve of Lauren to provide a pipe sleeve that has improved rigidity and is easier to handle.

The recitation that the pipe sleeve is for sound-level reduction in pipeline systems, in particular of heating installations or ventilation systems, does not confer patentability to the claim since the recitation of an intended use does not

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impart patentability to otherwise old compounds or compositions. *In re Tuominen*, 671 F.2d 1359, 213 USPQ 89 (CCPA 1982).

Given that the definition of "roll" encompasses "rounded as if rolled" and given that the continuous nonwoven web of the pipe sleeve of modified Lauren is rounded (Fig. 1), it is the Examiner's position that the continuous nonwoven web of Lauren is a roll of continuous nonwoven web.

Alternatively, although modified Lauren does not disclose that the continuous nonwoven web is from a roll as claimed, it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) . Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

Therefore, absent evidence of criticality regarding the presently claimed roll of continuous nonwoven web and given that modified Lauren meets the requirements of the claimed pipe sleeve, modified Lauren clearly meets the requirements of present claim 13.

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13. Claims 15, 16 and 20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin-Ehret-Hill Inc. (GB 1214330), in view of Seitz (GB 2032845), as applied to claim 1 above, in view of Blau et al. (US 3,346,016).

Regarding claims 15, 16 and 20, modified BEH discloses all of the claim limitations as set forth above. Modified BEH does not disclose that the reinforcing layer includes one of a particulate material, a particulate infrared radiation absorbing material or a particulate heat shielding material or that the reinforcing layer includes one of a foil material, or a heat reflective foil containing a metal, or that the reinforcing layer includes one of a foil material, or a heat reflective foil containing aluminum material.

Blau discloses a pipe sleeve (C2/L19-25) made of mineral wool containing particulate material, such as nodules of fiber and diatomaceous earth to provide thermal insulating and other properties (i.e. the reinforcing layer includes one of a particulate material, a particulate heat shielding material; the reinforcing layer includes one of a foil material or a heat reflective foil containing a metal; the reinforcing layer includes one of a foil material, or a heat reflective foil containing aluminum material) (C4/L15-16; C4/L20-30) for insulating pipelines, the pipe sleeve also having an aluminum foil which provides temperature resistance and reflective characteristics (i.e. characterized in that the reinforcing layer includes a foil material) (C4/L70-75).

BEH and Blau are analogous art because they all teach about pipe sleeves. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the particulate material and

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aluminum foil of Blau into the pipe sleeve of modified BEH to provide a pipe sleeve having the advantage of enhanced thermal insulating and other properties as well as temperature resistance and reflective characteristics.

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin-Ehret-Hill Inc. (GB 1214330) in view of Seitz (GB 2032845), as applied to claim 1 above, in view of Hartranft et al. (US 5,457,136).

Regarding claim 17, modified Baldwin-Ehret-Hill Inc. discloses all of the claim limitations as discloses above. Modified Baldwin-Ehret-Hill Inc. does not disclose that the reinforcing layer is treated with a biocide agent. Hartranft et al. discloses a pipe sleeve (C2/L45-5) comprising a reinforcing layer (C3/L65-67) that is treated with a biocide to impart bacterial or fungal resistance to the sleeve (C8/L1-10).

Baldwin-Ehret-Hill Inc. and Hartranft et al. are analogous art because they both teach about pipe sleeves comprising reinforcing layers. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to add biocide to the reinforcing layer as taught by Hartranft et al. in the pipe sleeve of Baldwin-Ehret-Hill Inc. to provide a pipe sleeve that is resistant to bacteria or fungi.

Response to Arguments

15. Applicant's arguments, with respect to the rejections under 35 USC §112, first paragraph regarding "outer sheath reinforcing layer" and the trickle guard

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would fully circumferentially have been fully considered and are persuasive.

These rejections have been withdrawn.

16. Applicant's arguments filed 30 June 2009 have been fully considered but they are not persuasive.

Applicant argues that the figures and claims clearly support the term "continuous" and therefore the rejections under 35 USC §112, first paragraph should be withdrawn.

Given that the figures only represent one specific type of continuous and given that the definition of continuous clearly encompasses anything that is uninterrupted, Examiner maintains the rejection under 35 USC §112, first paragraph regarding this term.

Applicant argues that with respect to "trailing end", the specification at page 10, lines 4-12 define the trailing end and that one of ordinary skill in the art would clearly understand the phrase "trailing end", "continuous" and "a continuous nonwoven web".

Given that page 10, lines 4-12 merely state "overlaps the trailing end" and no definition of "trailing end", "continuous", or "a continuous nonwoven web" are provided, Examiner maintains the rejections under 35 USC §112, second paragraph regarding these phrases for the reasons set forth above.

Applicant argues that BEH in view of Seitz does not teach providing a continuous nonwoven web.

Given that the definition of continuous encompasses anything that is uninterrupted and given that a web is a sheet and a mat is a sheet, Examiner's

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position remains that given that the mat of modified BEH is uninterrupted, it is clearly a continuous nonwoven web.

Applicant argues that the process of modified BEH will result in a trailing end of the outer layer at a position where the trailing end is not reached and therefore the outer layer does not completely surround the roll so that the second layer is visible from the outside.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the second layer is not visible from the outside) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Given that the outer layer of Seitz completely surrounds the coil, it is clear that the outer layer of modified BEH will completely surround the coil.

Applicant argues that modified BEH does not disclose feeding at least one reinforcing layer into the winder before the nonwoven web runs into the winder, thereby providing said one reinforcing layer before inclusion of the nonwoven web in the pipe sleeve, and providing said reinforcing layer in such a way that during the winding said reinforcing layer becomes constituent part at the pipe sleeve produced as a result.

As set forth above, given the broad recitation of feeding the at least one reinforcing layer before the nonwoven web runs into the winder, thereby providing said at least one reinforcing layer before inclusion of the nonwoven

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web in the pipe sleeve, and given that all layers must be fed into the winder before any layer (i.e. reinforcing layer or the nonwoven web) run into the winder, it is the examiner's position that the BEH reference clearly meets the limitation that the process comprises feeding the at least one reinforcing layer before the nonwoven web runs into the winder, thereby providing said at least one reinforcing layer before inclusion of the nonwoven web in the pipe sleeve.

Applicant argues that modified BEH does not teach a reinforcing layer at the outer circumferential side of a sleeve body which is wound all around or that the outer layer may act as a trickle guard and cannot meet these limitations because of the slit.

It is clear from Figure 1 of Seitz that the outer layer is arranged around the full circumference, completely circumferentially around the coil. Although there is a slit in the pipe sleeve of modified BEH, there is no gap between the halves of the pipe sleeve and the two halves meet each other (Fig. 3). Therefore, the slits do not change the fact that the reinforcing layer is arranged around the full circumference, completely circumferentially around the coil.

It is clear that since the reinforcing layer is made of the same material and has the same structure as the instantly claimed trickle guard, it is inherently a trickle guard.

Applicant argues that Seitz fails to disclose a continuous nonwoven web made of mineral wool, only discloses two layers and does not teach adding a reinforcing layer before the inclusion of nonwoven web.

However, note that while Seitz does not disclose all the features of the present claimed invention, Seitz is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely an outer sheath reinforcing layer added after providing the inner layer in such a way that said outer sheath reinforcing layer comes to lie on the outside of the pipe sleeve with the effect of lamination, as an outer layer; added to a trailing end section and in combination with the primary reference, discloses the presently claimed invention.

Applicant argues that there is no disclosure to add the reinforcing layer to the trailing end of the nonwoven web and does not teach the reinforcing layer arranged around the full circumference of the sleeve body.

As set forth above, Seitz discloses a process for making an insulating shell for thermal insulation of pipelines (i.e. a pipe sleeve) (P2/L1-5), comprising rock wool (i.e. mineral wool) having an outer layer of glass wool (i.e. an outer sheath reinforcing layer) (P2/L10-16). Seitz discloses that the outer layer of glass wool layer is produced by coiling the outer layer of glass wool layer on a mandrel after coiling on the inner rock wool layer (i.e. added after providing the inner layer in such a way that said outer sheath reinforcing layer comes to lie on the outside of the pipe sleeve with the effect of lamination, as an outer layer; added to a trailing end section) (P1/L117-125). It is clear from Figure 1 that the

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outer layer is arranged around the full circumference, completely circumferentially around the coil.

Applicant argues that Hofmann discusses a split pipe sleeve and therefore does not provide the outer sheath reinforcing layer arranged around the full circumference, completely circumferentially around the coil and Hofmann discloses an additional thin insulating layer making it impossible for the outer sheath reinforcing layer to be arranged around the full circumference.

Note that while Hofmann does not disclose all the features of the present claimed invention, Hofmann is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely that the reinforcing layer is applied to the mandrel before the winding of the nonwoven web in such a way that it provides the inner surface of the pipe sleeve determining the clear internal diameter of the pipe sleeve, and in combination with the primary reference, discloses the presently claimed invention.

Applicant argues that the strips of Roth do not perform the same function or structure as the instant reinforcing layer.

Applicant's argument is merely a conclusory statement. No evidence or reasoning is given as to why the strips of Roth might not perform the same function or have the same structure as the instant reinforcing layer. Given that the instant claims broadly recite that the reinforcing layer comprises a plurality of

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separate strips and given that Roth discloses a process for producing pipe sleeves (C1/L10-15) comprising reinforcing layer comprising a plurality of separate strips (C2/L40-52, bracing strips), it is the examiner's position that modified BEH meets the limitations of claim 3.

Applicant argues that Roth does not teach feeding at least one reinforcing layer into the winder before the nonwoven web runs into the winder, thereby providing said at least one reinforcing layer before the inclusion of the nonwoven web in the pipe sleeve.

Note that while Roth does not disclose all the features of the present claimed invention, Roth is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely providing the reinforcing layer in the form of strips, and in combination with the primary reference, discloses the presently claimed invention.

Applicant argues that the asserted motivation fails because the pipe of Roth does not have uniform density and BEH discloses that uniformity is desired.

Applicant's argument is not persuasive because it is not clear where Roth discloses non-uniform density, wall size and ratio. It is also not clear that BEH requires uniform density, wall size and ratio, the cited portions of BEH merely disclose that these characteristics can be controlled. Regardless, Roth is not used to teach uniformity or non-uniform density of the pipe, but is used to teach

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providing the reinforcing layer in the form of strips, which would not have any effect on density, wall size and ratio absent evidence to the contrary.

Applicant argues that Lauren fails to disclose a roll of continuous nonwoven web made of mineral wool due to the presence of V shaped slits.

Given that the definition of continuous encompasses anything that is uninterrupted given that the reinforcing layer of Lauren is uninterrupted, it is clearly a continuous nonwoven web.

It is the examiner's position regarding of the presence of the V-shaped slits, that the layer is continuous given that the slits do not penetrate the entire depth of the layer.

Given that the definition of "roll" encompasses "rounded as if rolled" and given that the continuous nonwoven web of the pipe sleeve of modified Lauren is rounded (Fig. 1), it is the Examiner's position that the continuous nonwoven web of Lauren is a roll of continuous nonwoven web.

Alternatively, although modified Lauren does not disclose that the continuous nonwoven web is from a roll as claimed, it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) . Further, "although produced by a different process, the burden shifts

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to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

Therefore, absent evidence of criticality regarding the presently claimed roll of continuous nonwoven web and given that modified Lauren meets the requirements of the claimed pipe sleeve, modified Lauren clearly meets the requirements of present claim 13.

Applicant argues that Lauren and Seitz fail to disclose the same material for the reinforcing layers.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the reinforcing layers being the same material) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Given that Lauren states that the term "mineral wool" is used to mean any kind of wool or mineral material such as glass wool (C1/L10-15), it is clear that Lauren discloses that the inner layer (i.e. the reinforcing layer) may be glass wool.

Applicant argues that modified Lauren does not disclose the outer sheath reinforcing layer provided as one of or a combination of a glass nonwoven or a woven glass fiber fabric or includes one of a particulate material, a particulate infrared radiation absorbing material or a particulate heat shielding material or

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includes one of a foil material, or a heat reflective foil containing a metal or is treated with a biocide agent.

Given that glass wool is made of glass and is not woven, it is the examiner's position that glass wool is a glass nonwoven fabric, absent evidence to the contrary.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES YAGER whose telephone number is

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(571)270-3880. The examiner can normally be reached on Mon - Fri, 7:30am-5pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY 11/11/09

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1794